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START

September 23, 1991

Meeting Minutes Transmittal/Approval
Aggregate Area Status Unit Managers Meeting
450 Hills Street, Room 47
Richland, Washington
August 15, 1991

From/
Appvl.: _____ Date: Oct 16, 1991
Jim Goodenough, Unit Manager, DOE-RL (A5-19)

Appvl.: _____ Date: 12/27/91
Larry Goldstein, 100-HR-1/BC-1/BC-5/NR-1/KR-1 Unit Manager, WA Department of Ecology

Appvl.: _____ Date: 10/16/91
Douglas R. Sherwood, 100-HR-1/HR-3/DR-1/BC-1/BC-5 Unit Manager, EPA (B5-01)

Meeting Minutes are attached. Minutes are comprised of the following:

Attachment #1 - Meeting Summary/Summary of Commitments and Agreements
Attachment #2 - Attendance List
Attachment #3 - Commitments/Agreements Status List
Attachment #4 - Proposed Changes to Work Plans and Well Locations for 100-BC-5 and 100-HR-3 Operable Units
Attachment #5 - Existing Well Fitness For Use Evaluations 100-KR-4 & 100-BC-5 Operable Units, Field Activities

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Prepared by: _____ Date: 1/24/92
SWEC Support Services

Concurrence by: _____ Date: 1/23/92
WHC Coordinator

Aggregate Area Status Unit Managers Meeting
August 15, 1991

Distribution:

Pamela Innis, EPA (B5-01)
Donna Lacombe, PRC
Ward Staubitz, USGS
Diane Clark, DOE (A5-55)
Doug Fassett, SWEC (A4-35)
Mary Harmon, DOE-HQ (EM-442)
Mike Thompson, DOE-RL (A5-19)
Tom Wintczak, WHC (B2-15)
Mel Adams, WHC (H4-55)
Merl Lauterbach, WHC (H4-55)
Linda Powers, WHC (B2-35)
Don Praast, GAO (A1-80)
Ronald D. Izatt (A6-95)
Director, DOE-RL, ERD
Ronald E. Gerton (A6-80)
Director, DOE-RL
Roger D. Freeberg (A6-95)
Chief, Rstr. Br., DOE-RL/ERD
Steven H. Wisness
Tri-Party Agreement, Prog. Mgr.
Richard D. Wojtasek (B2-15)
Prgm. Mgr. WHC

ADMINISTRATIVE RECORD: 100-HR-1, 100-HR-3, 100-DR-1, 100-BC-1, 100-BC-5, 100-KR-1, 100-KR-4, 100-NR-1, 100-NR-3; Care of Susan Wray, WHC (H4-51C)

Please inform Doug Fassett (SWEC) of deletions or additions to the distribution list.

Attachment #1

Summary of Meeting and Commitments and Agreements
Aggregate Area Status Unit Managers Meeting
August 15, 1991

1. Steve Weiss (WHC) presented the minutes from the meeting on ecological studies and the river impact study. The minutes were circulated for *review* by the regulators. *Comments were requested by August 30, 1991, for inclusion and so that the minutes can be signed at the September UMM.*

2. Jeff Ayres (WHC) gave an update on work at 100-HR-1 for the past three months. The follow-up surface radiation survey was completed about a month ago. The soil sampling confirmed cesium contamination *in only one specific location.* The draft report on this survey is expected to be completed on August 16.

3. There were no findings from the first part of the surface radiation survey of the 100-DR-1 area. The radiation survey of the 100-DR-1 area will continue, but it will be postponed when the river *shoreline* survey commences.

4. Steve Vukelich (WHC) gave an update on changes to the rescoped 100-HR-3 and 100-BC-5 work plans and on proposed monitoring well locations at the 100 areas (see Attachment #4). Waste disposal areas, retention basins, burial grounds, coal storage areas, ash pits and areas of high surface disturbance as well as the locations of existing wells were used to locate new monitoring wells.

5. There was no change in the number of wells proposed for the H area in the rescoped work plan. Based on the rescoped work plans, there is to be one less well in the D area and four more wells in the BC area. It was expected that some of the wells would be drilled as RCRA wells. Steve Vukelich said WHC was proposing to install one deep well between the major liquid disposal site and the river in every reactor area. Three wells will be installed around each reactor area. Ten wells are proposed for 100-HR-3. In the 100-FR area a total of 13 new wells are proposed. Gross beta, strontium and tritium have been identified in wells in the FR Area. The total number of proposed wells for the 100 areas, including deep wells, is 52. All of these wells are either priority one or priority two. The installation of wells is planed to start on October first. The goal is to have the wells drilled in 18 months.

6. Roberta Day (WHC) gave an update on the 100-BC area. Ms. Day said the biological assessment and bald eagle site management work were in progress. The cultural resources survey and the mammal survey work were in progress and were nearly completed. The bird/vegetation surveys were completed and in the process of being mapped. The geologic mapping field work was completed and the associated documentation is being completed. The NEPA documentation was at Headquarters for approval.

7. Martin Gardner (WHC) gave an update on the Fitness For Use evaluations of the existing wells in the 100-KR-4 and 100-BC-5 operable units (see Attachment #5). The RCRA and CERCLA data quality objectives and remediation criteria for monitoring wells was issued in a 1990 joint EPA/Ecology letter. The Fitness For Use evaluations are being performed in accordance with DOE/WHC guidance document EII 6.6. Mr. Gardner said the main purpose of the evaluations was to establish the integrity of the existing wells for the data quality objectives. For the evaluations, well histories are reviewed, well surface structures are inspected, as-built documents are prepared, and comprehensive well maintenance is performed in the field. Initially 60 wells were chosen to be evaluated; 35 of those had water in them or water could be reached in them. Thus, there are potentially 35 wells that were identified that require comprehensive well maintenance. They are old carbon steel wells and they may need remediation to meet the data quality objectives. There were 14 out of 15 wells that work was completed on, and that were found to be fit for use. Criteria from EPA, Ecology, and DOE need to be applied before the wells can be put into use or abandoned. Fred Roeck (WHC) said it was hoped that some of these wells could be sampled in fiscal year 1991. Field activities began on May 31 and are mostly on schedule. Geophysical evaluations on these wells are being considered.

Attachment #2

Attendance List

Aggregate Area Status Unit Managers Meeting
August 15, 1991

Name	Organization\Responsibility		Phone
Harris, Allan	DOE-RL	Unit Manager	509-376-4339
Shafer, David	DOE-RL	Unit Manager	509-376-4670
Cline, Chuck	Ecology	U.M. Hydrogeo.	206-438-7556
Hibbard, Richard	Ecology	CERCLA Unit	206-493-9367
Allender, Robert	BCC	Ecology Support	206-244-7005
Innis, Pamela	EPA	Unit Manager	509-376-4919
Einan, Dave	EPA	Unit Manager	509-376-3883
Fassett, Doug	SWEC	GSSC	509-376-5011
Fryer, Bill	SWEC	GSSC	509-376-9830
Knox, Kathy	CNES	GSSC	509-376-5011
Shigley, Diane	SWEC	GSSC	509-376-5038
McClung, Bill	SWEC	GSSC	509-376-1838
Drost, Brian	USGS	EPA Support	206-593-6510
Day, Roberta	WHC	100-BC-1	509-376-7602
Downey, Hal	WHC	ER Programs	509-376-5539
Clark, Steven	WHC	EEG	509-376-1513
Gardner, Martin	WHC	Field Work	509-376-2908
Ayres, Jeff	WHC	100-HR-1	509-376-3918

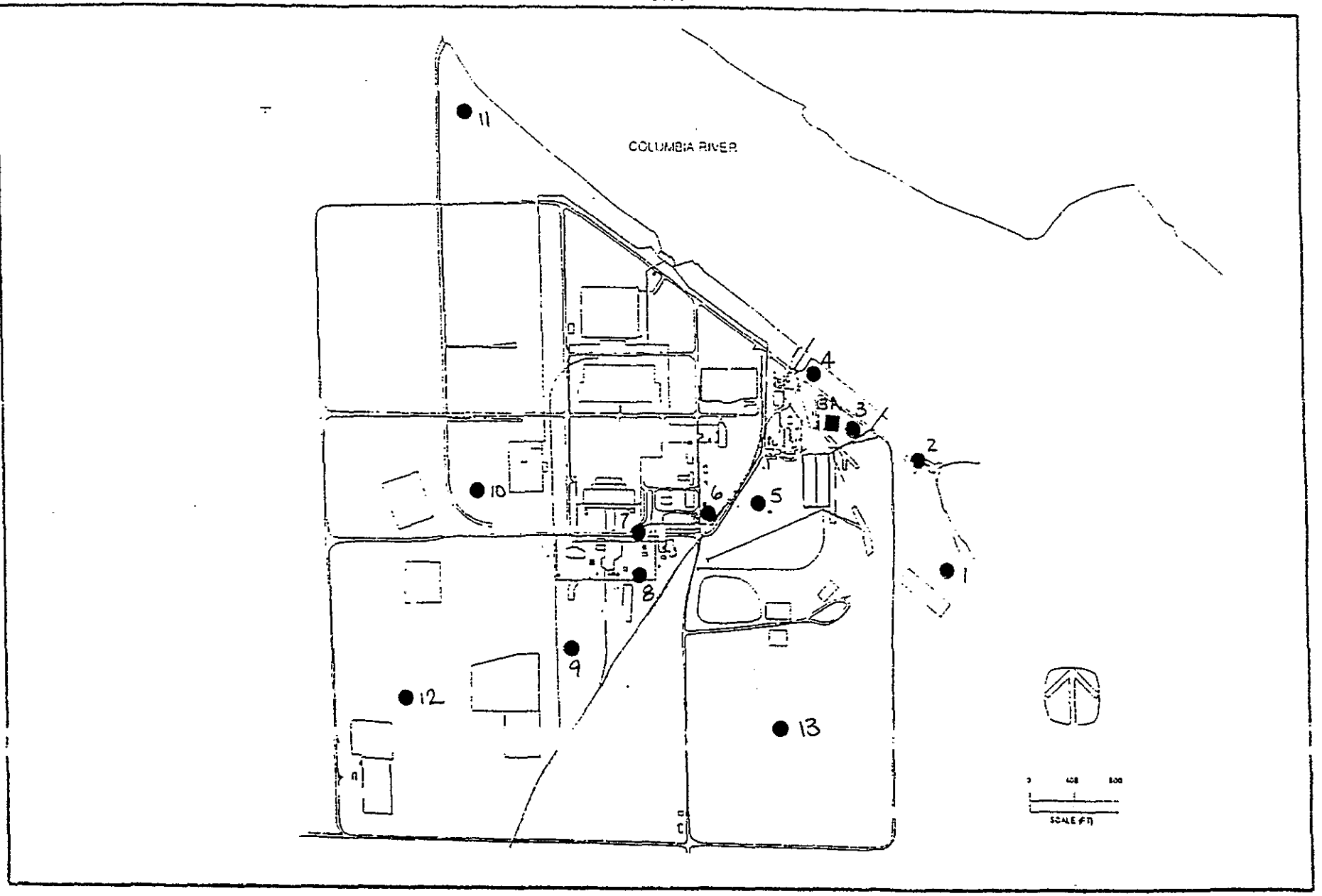
Attachment #3

Commitments/Agreements Status List

Aggregate Area Status Unit Managers Meeting
August 15, 1991

Item No.	Action	Status
1HR1.28	Determine when the topographic mapping will be available on HEIS, who is responsible for digitizing the mapping, and when it will be available. Action: Alan Krug (11/15/90)	Open: Remains open on the question of when the data will be in HEIS. (7/18/91)
1HR3.29	Provide regulators with information about the situation concerning the cooling-water discharge pipeline/vent pipes on the island opposite D reactor. Action: Jim Goodenough (11/15/90)	Open: WHC sent a letter to DOE requesting guidance on the extent of NEPA documentation required and is awaiting DOE's response. (7/18/91)
1HR3.32	Regarding the removal of the vent pipes, WHC will: 1) Determine the need for an ACE permit; 2) obtain a letter from ACE that gives approval to begin work before the need for the permit is determined; and, 3) draft letters on the matter to the Natural Resources Trustees. Action: A. Krug (1/15/90)	Open: Pending overall resolution (7/18/91)
1NR.3	Provide to Ecology (and EPA if desired) the DOE guidance documents that are needed. Action: Larry Goldstein (7/18/91)	Open: Larry Goldstein will send a letter specifying exactly what supporting documents Ecology would like to receive. (7/18/91)

Corps Draft A
DOE RL 90-33



WP3-44

100-F

● PROPOSED NEW WELLS
■ PROPOSED DEEP WELLS

9 2 1 2 4 6 7 1 5 9 1

INTRODUCTION

Since rescoping the Work Plans for 100-HR-3 and 100-BC-5 in June/July, Westinghouse has acquired topographic maps (scale 1:2,000), plotted source areas and existing well locations on these maps, evaluated groundwater level and chemical data and identified potential new sites on air photos for each Operable Unit. We have used this new information to reevaluate the groundwater investigations agreed to in the rescoping meetings and we recommend the following changes to the groundwater investigations be incorporated into the rescoped Work Plans. Enclosed are maps showing well locations as agreed to in the rescoping meetings and maps showing the proposed changes.

100-BC-5

A large pit exists east of the B Reactor that did not exist on air photos taken in 1964. It is located in the middle of a posted area indicating underground radiation contamination. We recommend installing a well to monitor this pit.

Groundwater in the 100-HR-3 Area appears to flow more parallel to the river as the distance from the river increases. We also recommend monitoring for groundwater flow parallel to the river in the 100-BC-5 Area by installing an additional well east of the C Reactor liquid disposal sites. We chose C Reactor because it is furthest from the river.

We recommend installing an additional well to monitor the 118-B-1 Burial Ground. This well serves 2 purposes. First, it will monitor for contamination that may be migrating from the solid waste burial ground and second, it will provide data to better determine the groundwater flow direction in the reactor area (ie. all other wells are in essentially a straight line).

The 1964 air photos indicate extreme ground disturbance along the river in the far north west corner of the site. We recommend installing a monitoring well in this area to assess whether contaminants were disposed in this area.

100-HR-3

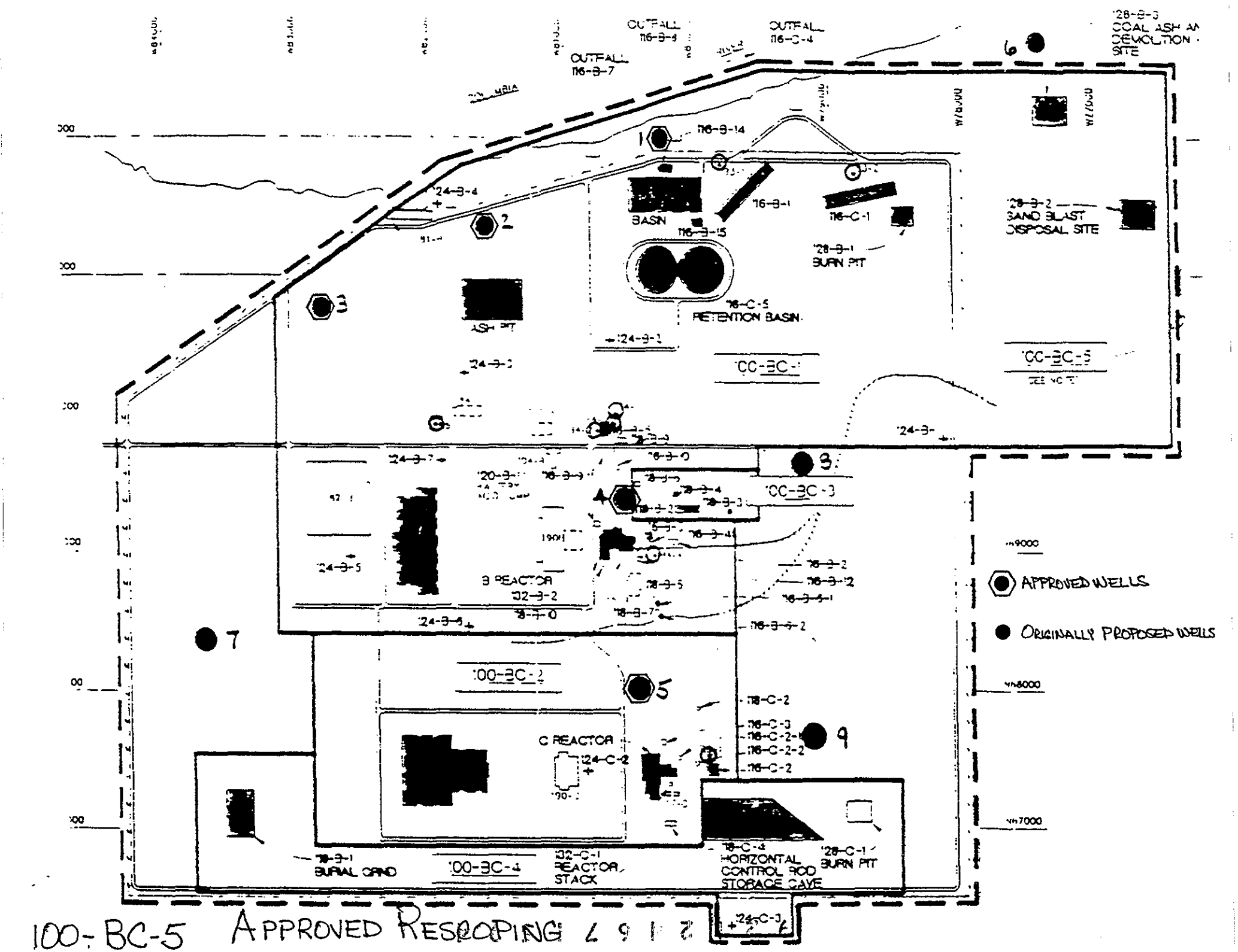
We recommend adjusting the locations of the seven proposed wells in the 100-H Area to better achieve their purpose.

We recommend locating 3 monitoring wells in the vacinity of each reactor. These wells will monitor the reactor and its liquid waste disposal sites for migration both parallel and perpendicular to the river.

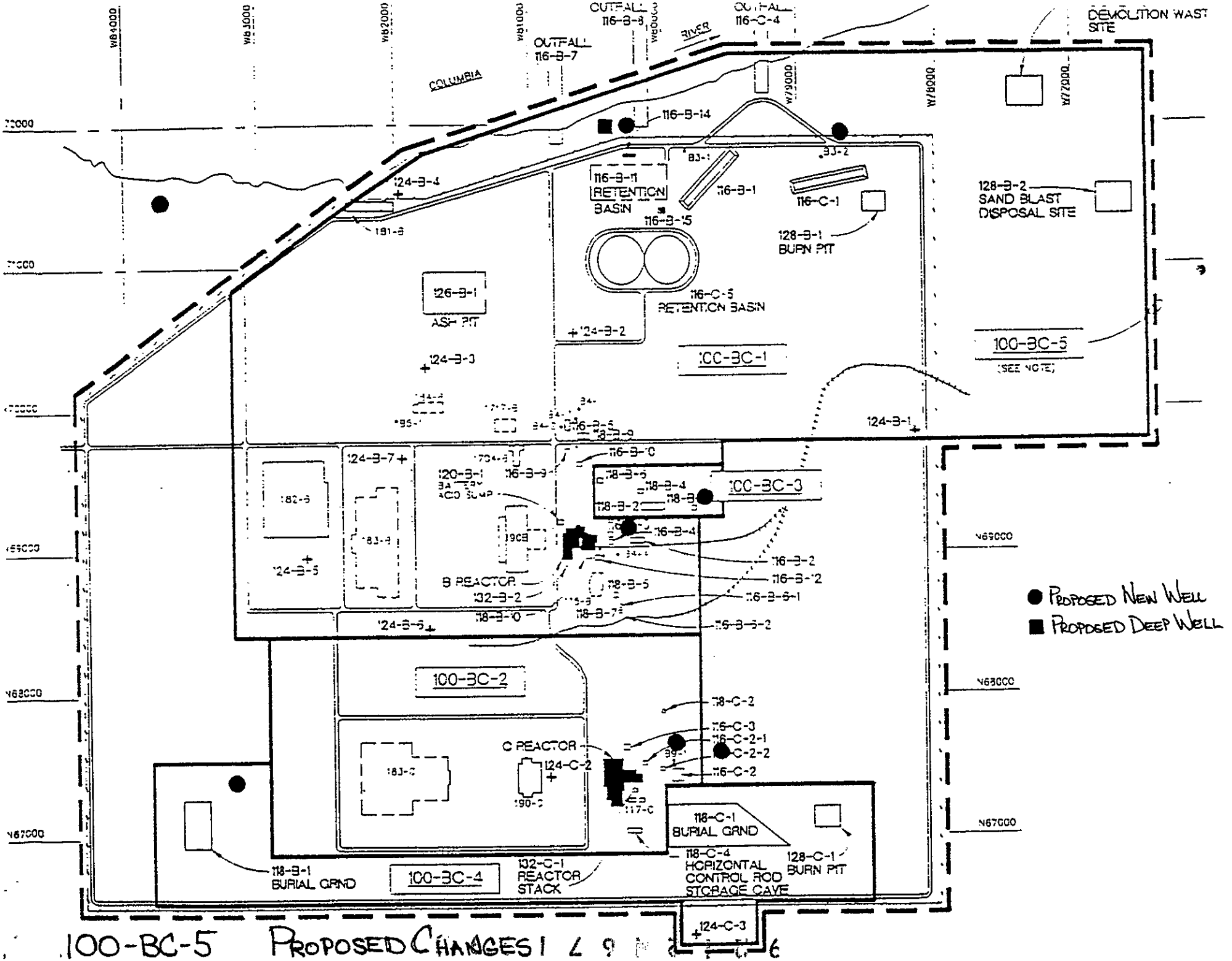
We recommend installing a well to monitor the 118-D-2 Burial Ground. This well will serve the same two purposes as for the 118-B-1 Burial Ground described above.

ALL AREAS

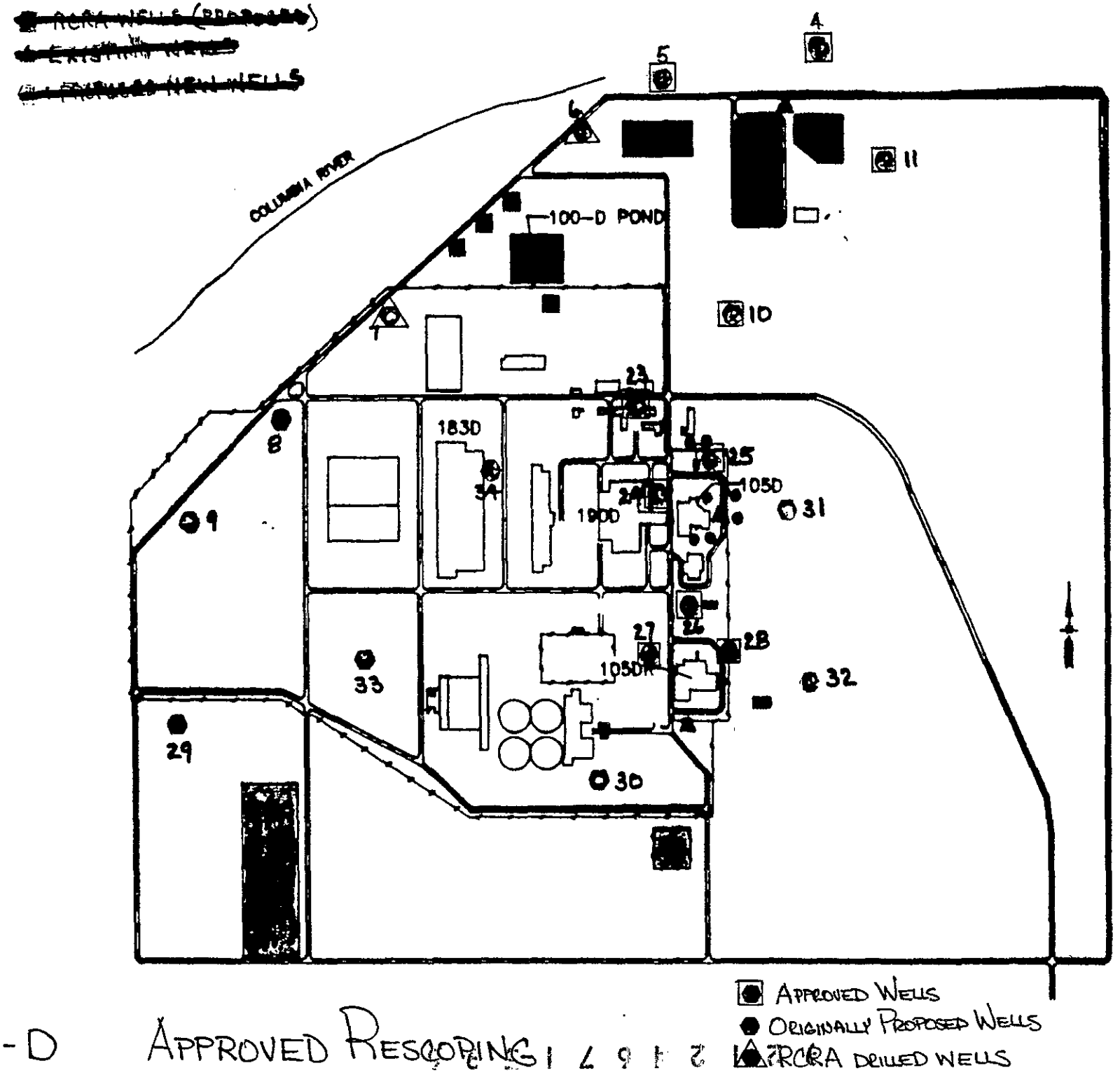
In each reactor area, we recommend installing one deep well to the first confined aquifer. These wells will monitor for the presence of contaminants in this aquifer and will give an indication of whether an upward or downward vertical groundwater gradient exists. We believe these deep borings are an important ingredient of this investigation because the presence of contamination in the deeper aquifers would likely influence the remediation options. We recommend locating the deep wells between the retention basins and the Columbia River.



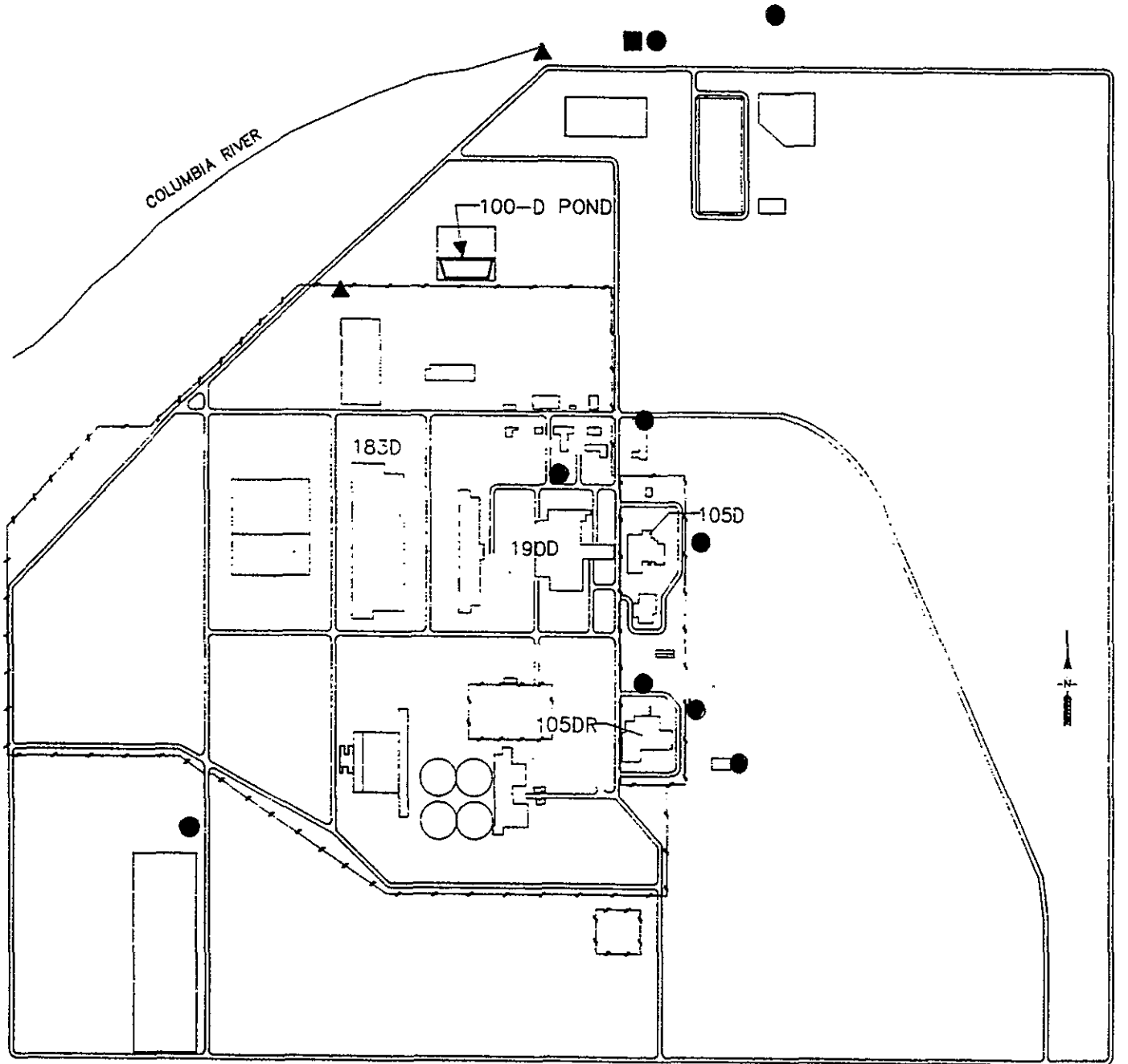
100-BC-5 APPROVED RESCOPING 7 9 1 2



100-BC-5 PROPOSED CHANGES 1 2 9 [illegible] 6

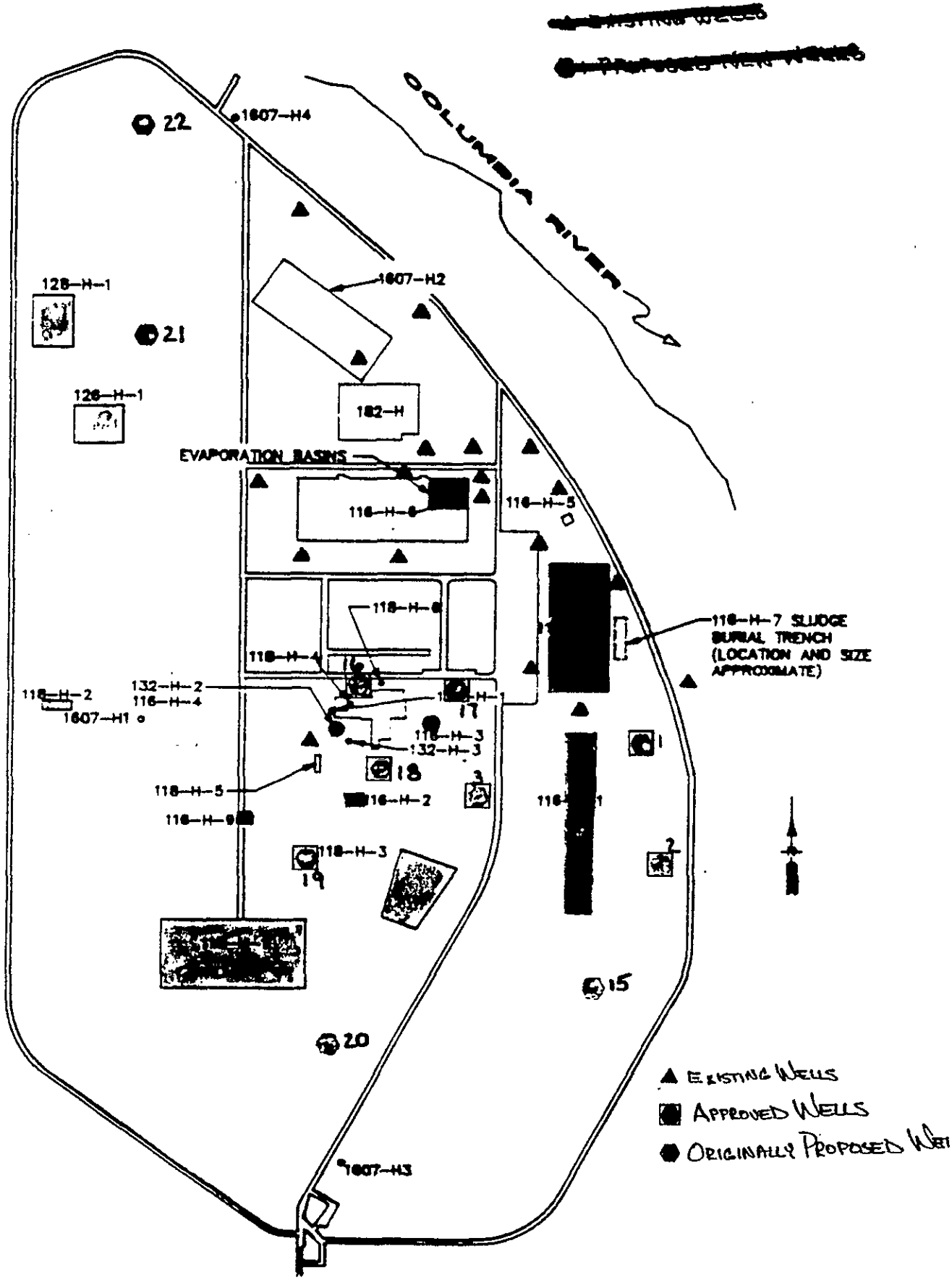


100-D APPROVED RESCORING

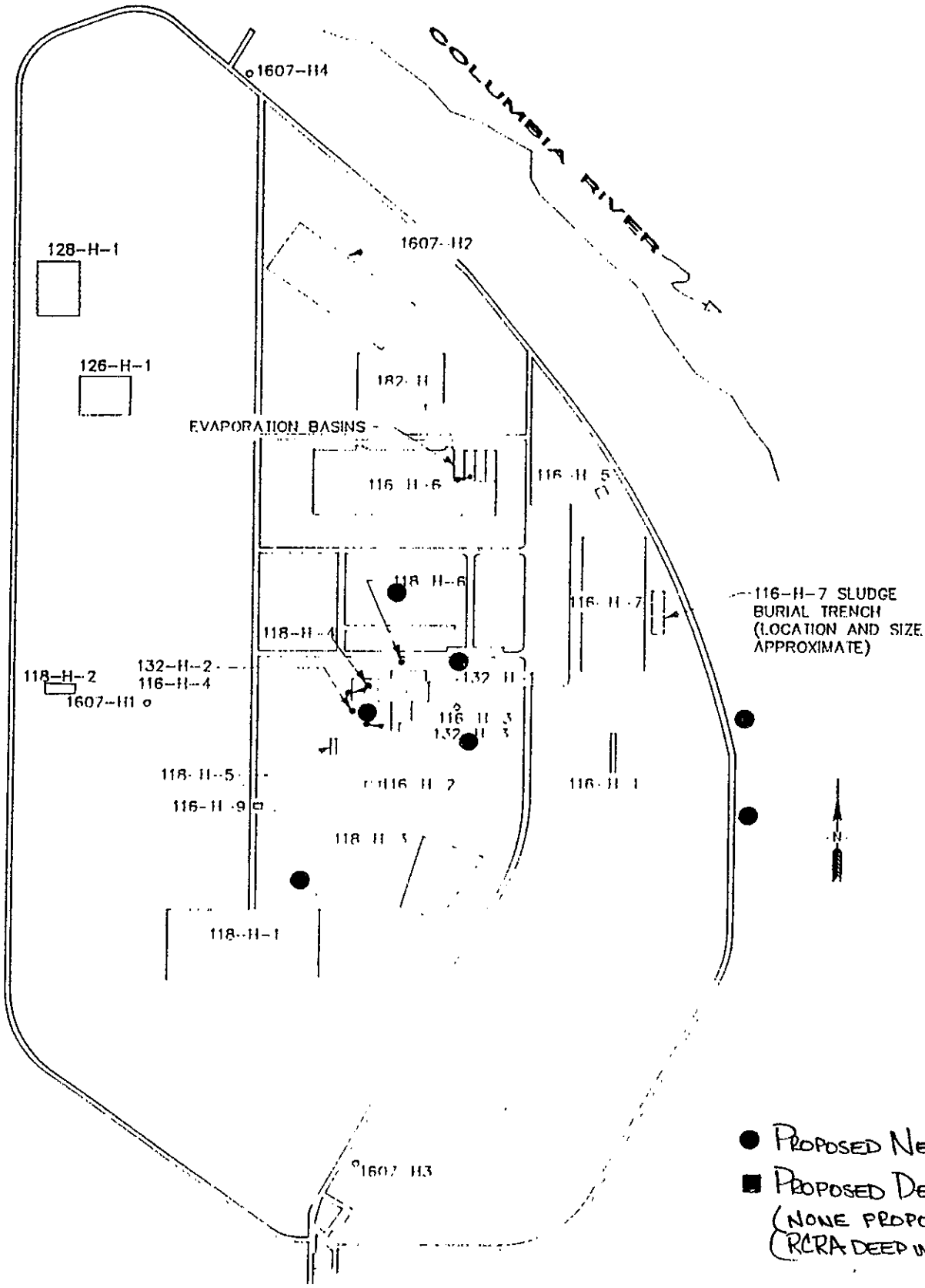


100-D PROPOSED CHANGES

● PROPOSED NEW WELL
■ PROPOSED DEEP WELL
▲ RCRA WELL



100-H APPROVED RESCOPING



100-H PROPOSED CHANGES

Existing Well Fitness-For-Use Evaluations 100-KR-4 & 100-BC-5 Operable Units Field Activities

Martin G. Gardner

Environmental Field Services Group

August 15, 1991

Fitness-For-Use Evaluations Are Conducted To Establish A Well's Fitness For Continued Use

Criteria for Fitness Based Upon:

- Federal and State Regulatory Requirements
  "Data Quality Objectives And Remediation Criteria For RCRA And CERCLA Wells At The Hanford Site, June 1990," T.L. Nord, Ecology, and P.T. Day, EPA
- U.S. Department Of Energy (DOE) Policy
- Hanford Site Needs
- WHC Environmental Division Criteria

Evalualtions are conducted in accordance with WHC-CM-7-7, EII 6.6, Resource Protection Well Characterization And Evaluation and may result in recommendations for well remediation or abandonment.

Well Fitness-For-Use Evaluations Center On Establishing A Well's Integrity For Supporting Data Quality Objectives

- Reviewing Well History
- Inspecting Surface Structure of Wells
- Preparing As-Builts
- Performing Comprehensive Well Maintenance
- Recommending Well Use As Is, Remediation or Abandonment

Comprehensive Well Maintenance Is Performed To Verify/Determine Well Structure And Condition Below Ground Surface And Involves The Performance Of Several Tasks

- Installating/Removing Sampling Pump Systems
- Conducting Borehole Camera Surveys
- Cleaning the well casing, perforations and/or screens
- Removing Debris from the well (sand, silt, various objects)
- Developing the Well
- Installing Monitoring Equipment

WHC-CM-7-7, EII 6.4, Resource Protection Well Services

35 Groundwater Wells Have Been Identified As Requiring Comprehensive Well Maintenance

100-KR-4	100-BC-5	600 Area
13	8	14

Field Activities Commenced On 5/31/91 And Are Progressing On Schedule

Status as of 8/14/91

Wells	Stage of Completion
1	Previously Abandoned
5	Not Begun
4	Pump Removed
8	Initial Camera Survey
3	Cleaned
1	Final Camera Survey
13	Pump Installed

Attachment

Well Fitness-for-use Field Activities Performed for 100-KR-5 and 100-BC-5 Operable Unit Investigations Status as of August 15, 1991

Well#	Pump Removal	Initial Camera	Well Cleaning	Well Develop.	Final Camera	Pump Install.
199-B3-1	6/03/91	6/07/91	6/11/91	7/10/91	7/24/91	7/30/91
199-B3-2						
199-B4-1	5/28/91	6/07/91	6/12/91	7/11/91	7/24/91	7/30/91
199-B4-2	NA	6/07/91				
199-B4-3	NA	6/07/91				
199-B4-4	5/28/91	6/10/91	6/18/91	7/15/91	7/24/91	7/30/91
199-B5-1	6/06/91	6/07/91	6/20/91	7/16/91	7/24/91	7/30/91
199-B9-1	6/03/91	6/10/91	6/19/91	7/12/91	7/24/91	7/30/91
199-K-10			Filled With Sand			
199-K-11	6/06/91	6/07/91	7/09/91	7/18/91	7/24/91	8/01/91
199-K-13	NA	6/21/91				
199-K-18	NA	5/28/91	5/30/91	7/17/91	7/24/91	
199-K-19	6/03/91	6/07/91	6/25/91	7/22/91	7/24/91	8/01/91
199-K-20	6/03/91	6/07/91	6/26/91	7/23/91	7/24/91	8/01/91
199-K-21						
199-K-22	6/03/91	6/07/91	6/27/91	7/29/91	7/29/91	8/01/91
199-K-23						
199-K-27	6/07/91					
199-K-28	6/07/91					
199-K-29	6/07/91					
199-K-30	6/07/91					
699-63-90	5/31/91	6/21/91	8/13/91			
699-65-72						
699-65-83	6/06/91	6/21/91	8/12/91			
699-66-64	8/06/91	8/08/91				
699-66-91						
699-67-86	5/31/91	6/21/91	NA	NA	NA	8/02/91
699-70-68	8/06/91	8/08/91				
699-71-77	6/06/91	6/10/91	NA	NA	NA	8/02/91
699-72-73	6/06/91	6/10/91	NA	NA	NA	8/02/91
699-72-88	5/31/91	6/21/91	NA	NA	NA	8/02/91
699-72-92	5/31/91	6/21/91	8/14/91			
699-73-61	8/06/91	8/08/91				
699-77-54	8/06/91	8/08/91				
699-78-62	8/06/91	8/08/91				

Comments:

Blank spaces indicate the activity has not been performed. NA in "Pump Removal" column indicates no pump was installed.

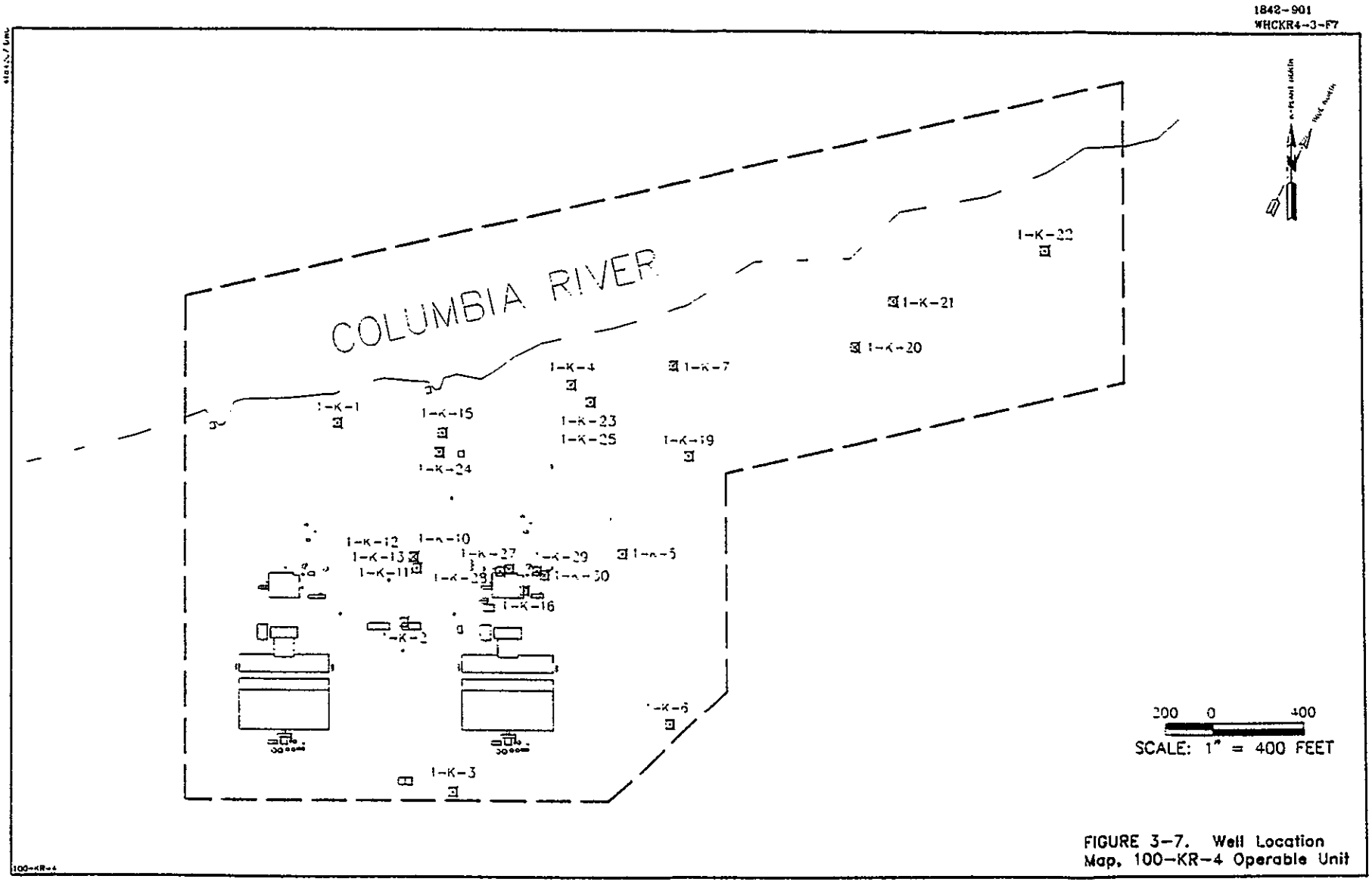


FIGURE 3-7. Well Location Map, 100-KR-4 Operable Unit

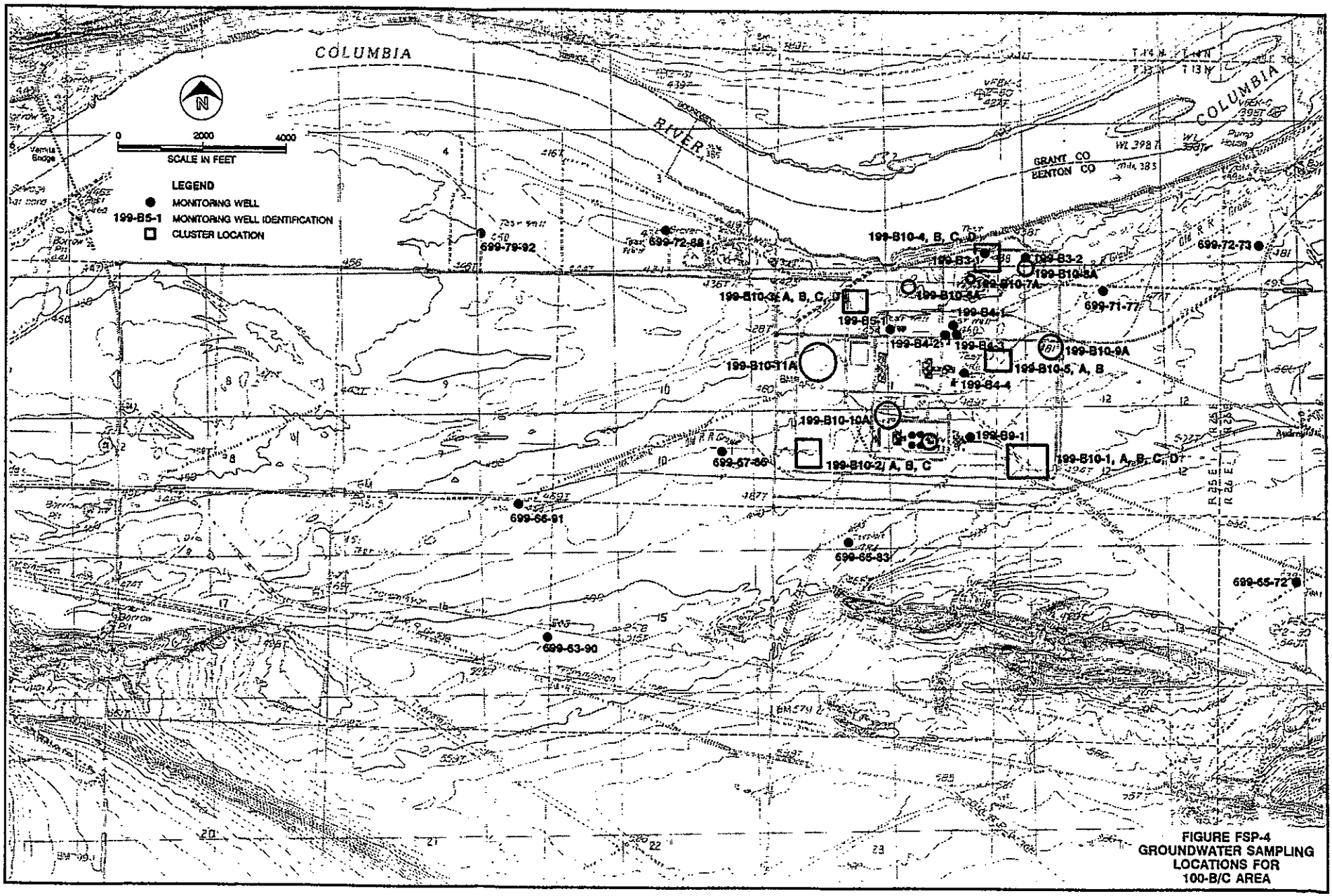


FIGURE FSP-4
GROUNDWATER SAMPLING
LOCATIONS FOR
100-B/C AREA

Following Well Maintenance Activities At 15 Wells, The Majority Of The Wells Have Been Found Fit For Use For Groundwater Monitoring*

- 14 wells have sample pump systems installed and are ready for collection of groundwater samples
- 1 well was previously abandoned by filling with sand

*Recommendations for Remediation Pending Completion of All Activities